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Management System
U.S. Department of Transportation
400 Seventh St., SW.,
Room PL 401,
Washington, DC 20590

Re: Docket Number RSPA-2002-13658 (HM-215E)

Dear Sir or Madam:

The National Electrical Manufacturers Association (NEMA) Dry Battery Section, which represents US manufacturers of dry cell batteries, is submitting these comments on RSPA's proposal to amend the Hazardous Materials Regulations (HMR) to maintain alignment with international standards. NEMA has had an extensive involvement in developing international standards related to the transportation of lithium batteries.

NEMA believes that the proposal is generally consistent with international standards with three exceptions.

First, Special Provision A55 as it relates to shipment of prototype lithium cells or batteries would provide an exemption from the testing requirements found in the UN Manual of Tests and Criteria for cargo air shipments of limited numbers of prototype lithium batteries if approved by the Assistant Administrator.

The related provisions found in the UN Dangerous Goods Regulations SP 310 and ICAO SP A88 authorize this prototype exemption for all air shipments, not just cargo air shipments and without additional approval of the country's regulatory body. The exemption recognizes that air shipments of limited numbers of prototypes in special packaging is essential to interstate commerce and poses virtually no risk.

The DOT proposal limits this international standard to render it virtually useless. First, the exemption requires the approval of the Assistant Administrator for RSPA. This approval process will result in significant delays of shipments that pose no risk defeating the purpose of the exemption to allow for the expeditious transportation of limited numbers of prototype batteries or cells. Companies often ship prototypes to customers on short notice. This approval process will stop this from occurring. Moreover, since anyone can petition the Assistant Administrator for an exemption to the HMRs, the additional requirement for approval of prototype exemptions adds little if any value to the existing HMR requirements. Second, the proposal limits the exemption to cargo aircraft. This may interfere with the speedy transportation of prototypes where cargo aircraft are not available.

Second, proposed section 173.185 (e)(7) limits the transportation of cells or batteries with liquid cathodes of sulfur dioxide, sulfuryl chloride or thionyl chloride if the cell has been discharged to the extent that the open circuit voltage is less than two volts or is less than 2/3 of the voltage of the fully charged cell, whichever is less. We recommend that the DOT eliminate this provision.

The UN Dangerous Goods regulations do not have a similar provision. Moreover, one of the tests that has to be performed at the cell level under the UN Manual of Tests and Criteria is a forced overdischarge test. If cells and batteries can pass this test there is no reason that they should be prohibited from being offered for transportation if the open circuit voltage is below 2.0 volts. Transportation incident records do not support differentiating lithium battery categories for safety reasons. Finally, it would be impossible to measure the voltage of individual cells in a large battery. Therefore, the shipper would have no way of verifying compliance with the regulations. It appears to us that this requirement is meaningless from a transportation safety perspective and out of date.

We also note that while SP 310 of the UN Model regulations allows for transportation of small production runs of less than 100 batteries, the proposal does not include this provision. Since the UN Manual of Tests and Criteria require the use of 28 primary batteries or 24-34 rechargeable batteries for testing, it is impractical to test that number of batteries for small production runs. In some cases, the testing may require production of more batteries than are being produced.

NEMA urges RSPA to remove the requirements in proposed Special Provision A55 to require the Assistant Administrator to approve every exemption request to ship limited numbers of prototype lithium batteries and to authorize the exemption only for cargo aircraft. Such changes will remove unnecessary interference with interstate commerce while posing no additional risk to safety. NEMA also urges RSPA to eliminate proposed section 173.185 (e)(7) and allow for the shipment of certain liquid cathode cells and batteries that pass the UN Manual of Tests and Criteria. Finally, NEMA requests that RSPA include the small production run exemption to testing found in SP 310 of the Model regulations.

Finally, NEMA recommends that RSPA consider reduced testing for batteries of similar chemistry, design and capacity. For example, batteries of similar chemistry and design and capacity difference of plus or minus 20% should be considered as a group. We would like to suggest that only the largest batteries currently produced of similar chemistry and design should be tested to the full range of tests. Smaller batteries of similar chemistry and design should be tested to a less rigorous test regimen (T-1 through T-4) that directly focus on transportation safety issues. New batteries that are 20% larger than the largest battery tested or outside the group would be considered a new type and should be subjected to the full range of tests. This would reduce unnecessary testing of batteries in the group thereby reducing costs without sacrificing safety.

Please contact me if you would like to discuss this issue in greater detail.

Sincerely,

Ric Erdheim
Senior Manager